

## ABSTRACT

Redwood (*Sequoia sempervirens* [D. Don] Endl.) sprout growth rates were monitored for 31 years. Results indicate that thinning of sprouts at two years of age accelerates growth on those remaining stump sprouts that receive full light at the time of thinning. Conversely, sprouts receiving only moderate amounts of light and some competition from surrounding vegetation grow at a significantly faster rate when unthinned than when thinned. The author proposes that sprout growth and mortality are related to light levels at the time of thinning and soil moisture availability during the first several growing seasons. Physiological factors responsible for the observed results and some silvicultural implications are discussed.

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